ProMotion Nest tools and options

Increase your gas and plasma cutting productivity by using the ProMotion® Nest software. It runs as standard in ProMotion® iCNC-controllers, but it is also available as office software to be used with any CNC cutting machine.

CNC Software level zero (S0)

- Metric or inch mode
- Print
- Macro shapes library
- DXF/EIA/ESSI input
- Save CNC-2
- Copy / Cut / Paste parts
- Marking from CAD-drawings using
-     different layers
- Remove parts or elements
- Move / Rotate / Mirror parts
- Change Piercing location
- Change Kerf compensation side
- Change Cutting direction
- Split element
- Join profiles
- Basic leadins
- Optimize cutting order
- Manual cutting order
- Ruler to measure distances
- Zoom / Unzoom / Pan view
- Nesting info
- Multiply (*Rows and Columns*)
- MicroCAD
- Cost calculator

CNC Software level one (S1)

Includes all tools of S0 with the following additions.

Advanced leadins (replaces basic leadins of S0)

Bridge

Chain cutting

Plate editor

- o   Teach remnant
- o   Split (show remnant)
- o   Rotate, mirror

Anchor

Plate-Part-Plate

Pick part

Machining allowance

This is the minimum level required to purchase options (see Options).

CNC Software level two (S2)

Includes all tools of S0 and S1 with the following additions.

AutoNest (included in S2)
- o Auto Nesting
- o Part in Part Nesting
- o Multi Plate Nesting
- o Automatic Nesting on remnant and round plates
- o Triangle Nesting
- o Group Nesting
- o Freeze
- o Common Cut tool (manual)
- o Collision tool
- o Autofill

Office Software

Includes all tools of S0, S1 and S2 with the following additions.

Save cutting programs as…
- o EIA
- o ESSI
- o DXF

OPTIONS

Options may be purchased to Office software and CNC levels S1 and S2. They may not be purchased to CNC level S0.

Feed Rates (Speed)
- Feed Rate tool
- Feed Rate profiles
- **Optimize** (DiameterPro) in CNC

Advanced marking
- Read TEXT from DXF
- Add marking text to parts
- Hole to point marking tool
- Cut to line marking tool
- Drill select tool

Save EIA/ESSI/DXF

Kerf offset

Software Maintenance & Support Agreement

TOOL DESCRIPTIONS

CNC Software level zero (S0)

Macro shapes library – Select from over 42 macro shapes in our Shape Library. Then use Micro CAD to create an infinite number of new shapes.

DXF Converter – Easily converts CAD drawings (DXF files) to cutting programs.

Change Piercing location – Allows you to change the pierce point to the first point of the element or you can choose any point on the element.

Kerf Compensation – Gives the ability to change kerf of a profile, allows you to change from kerf left, kerf right and zero kerf.

Basic Leadins – This tool allows you to change the location of the lead in and lead out.

Change cutting order – Gives the ability to change the cutting order of parts on a nest.

Rows and Columns – Allows you to create row and column nest.

Change cutting direction – Allows you to change the cutting direction from clockwise to counter clockwise.

MicroCAD - Tool for editing and to create new shapes

Cost calculator – By supplying the end-users data and real manufacturing costs, the system will calculate the cost to cut your desired nest or parts.

TOOL DESCRIPTIONS
CNC Software level one (S1)

Expanded Lead-In/Out – Allows the user to assign the desired type of lead in and lead out. The user can choose between: None, Straight, 90 degrees straight and Straight with arbitrary angle or Arc. The user can assign them individually or globally to all parts. Using the Move Pierce Point tool the user can select where to put the pierce point.

Bridge Tool -Allows the user to assign cut segments between parts (a Bridge). This tool alone can produce cost savings as high as 40% by decreasing the number of pierces and the total time consumed by them. Experience prolonged life of your plasma consumables.

Chain Tool - Allows the user to assign a cut path, connecting the lead ins and lead outs for desired parts. This tool can reduce manufacturing part cost by reducing the cycle time and number of pierces. Experience prolonged life from your plasma consumables.

Plate Editor – By using the plate and machine motion the user can teach the shape of the plate to the controller. The software at the controller can then automatically nest all the necessary parts right there at the cutting machine on that remnant. This tool can reduce manufacturing cost by reducing waste of material and saving idle time at the machine. No more manual measurements or need to trial run the machine to determine if the parts are going to fit on your plate.

Anchor tool – Using this tool to anchor the part on plate during cutting. This is done by creating small gaps on the cutting profile so the cutting is ceased on these gaps.

Plate – Part – Plate -This tool simply converts a plate to a part and vice versa.

Pick part - Use this tool to pick any part from a nesting. The picked part will be copied to its own nesting and then moved to the origin.

Machining Allowance – Machining Allowance is an additional area left on cut pieces to be processed by a machining tool. When activated, the program displays a window with a short description of how to use this tool.

CNC Software level two (S2)

Auto Nesting - This tool activates the automatic nesting process. It nests all the parts in the current nesting to the current plate. The user can also automatically nest parts in parts, nest parts to multiply sheets, or nest on rounds and remnants.

Triangle Nesting - This tool nests the parts into the smallest possible rectangle. For example two triangles are nested so that their sides are facing each other.

Multi Plate Nesting - MultiNest nests all shapes automatically. If shapes do not fit on the current plate, MultiNest creates new copies of the current plate and continues nesting on them until all the shapes are nested.

Group Nesting - This tool allows you to copy shapes to nesting groups. Nesting group is a group of parts, which all move and autonest together like a single shape. When this tool is active the dialog below is visible.

Freeze - This tool allows you to freeze parts for the duration of the automatic nesting process. Frozen parts do not change their position during automatic nesting process.

AutoFill - This tool fills the remaining area of the plate with the copied shapes. ProMotion® Nest nests all shapes automatically to get optimal fill.

Collision Tool - Colliding means that you move a shape as close to another as possible. ProMotion® Nest provides collision tools for this purpose.

Common Cut - Common Cut tool let's you join two parts in a way that their common section (line) is cut with a single cut.

TOOL DESCRIPTIONS

OPTIONS

Feed Rates - This tool allows you to add feed rates (i.e. cutting speeds) to your cutting program. You can set feed rates for individual profiles or elements.

Optimize / DiameterPro - Optimize tool applies optimized process data to the current nesting. Optimized data has the best known cutting parameters for the selected process. Optimizing sets cutting speeds, leadins, leadouts and many other things (This option is available with CNC only).

Advanced Marking -

- o **Marking Text -** With this tool you can insert text on plates for marking.

- o **Hole to Point -** This tool converts round holes to point marking points.

- o **Cut to Line Marking -** This tool converts holes to line marking profiles. You only need to click those holes you want to convert.

- o **Drill Select -** Adds a special tool selection code for a point marking (drill) point.

EIA / ESSI / DXF Output - DXF format is supported by most present day CAD softwares. This option is included in all office versions. Optional for CNC S1 and S2 versions.

Kerf Offset - This tool calculates the real cutting path, when kerf compensation is added.

Software Maintenance & Support Agreement - an excellent value for the money. One year software support and maintenance agreement for office and controller software insures you will receive new software releases and updates. Support can be via phone or high speed internet connection. Group training, advanced software training and annual software upgrades